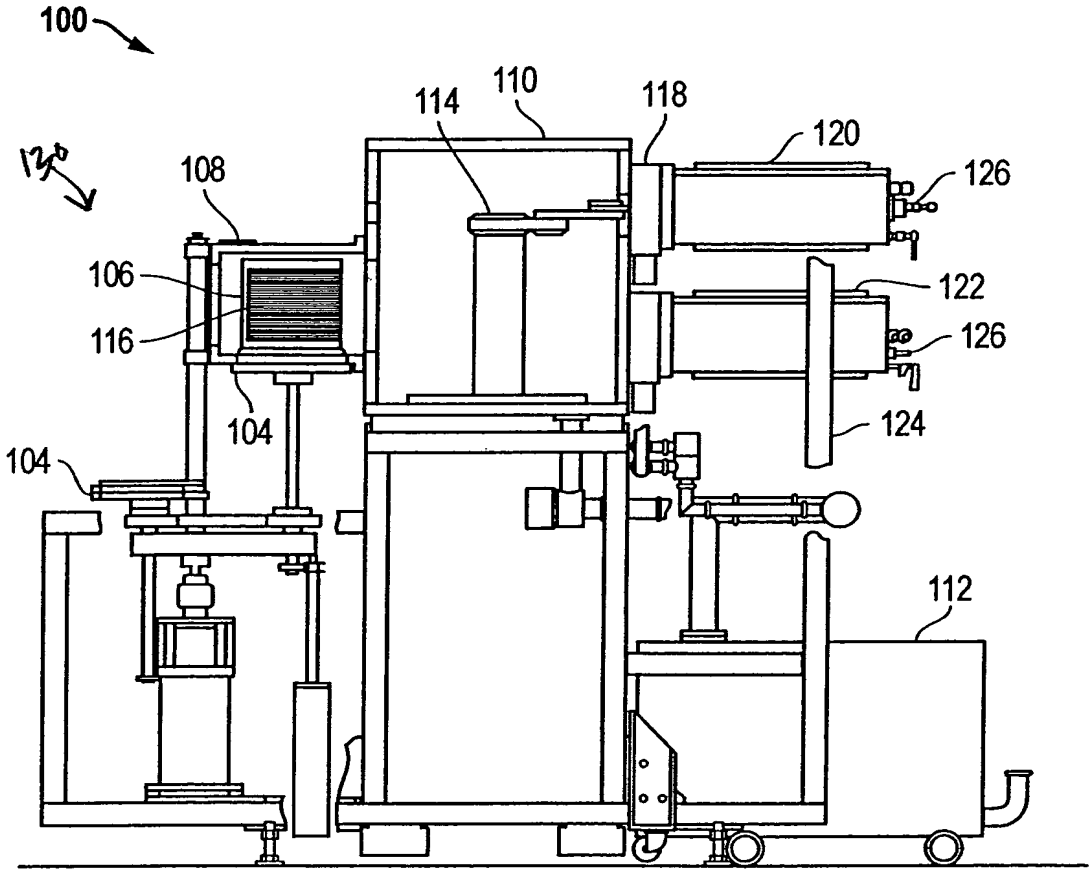



*FIG. 1*

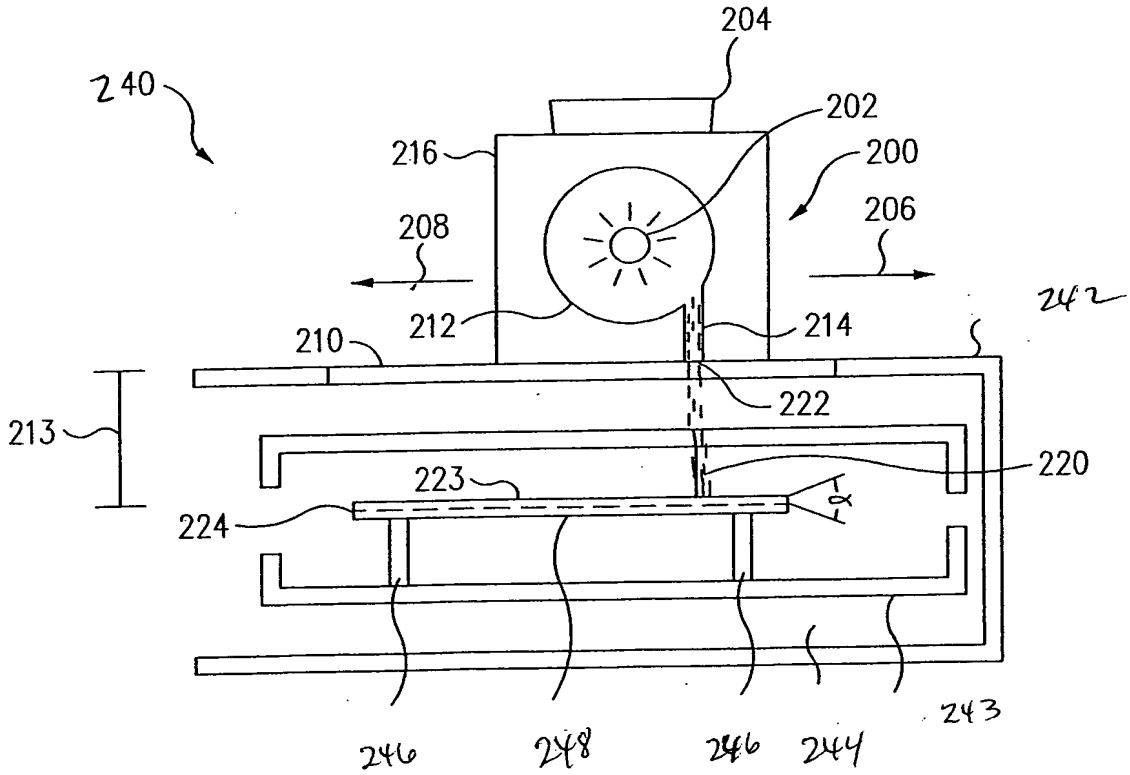

240
204
202
216
200
208
206
242
212
214
210
222
213
220
223
224
243
246
248
246
244

FIG. 2A

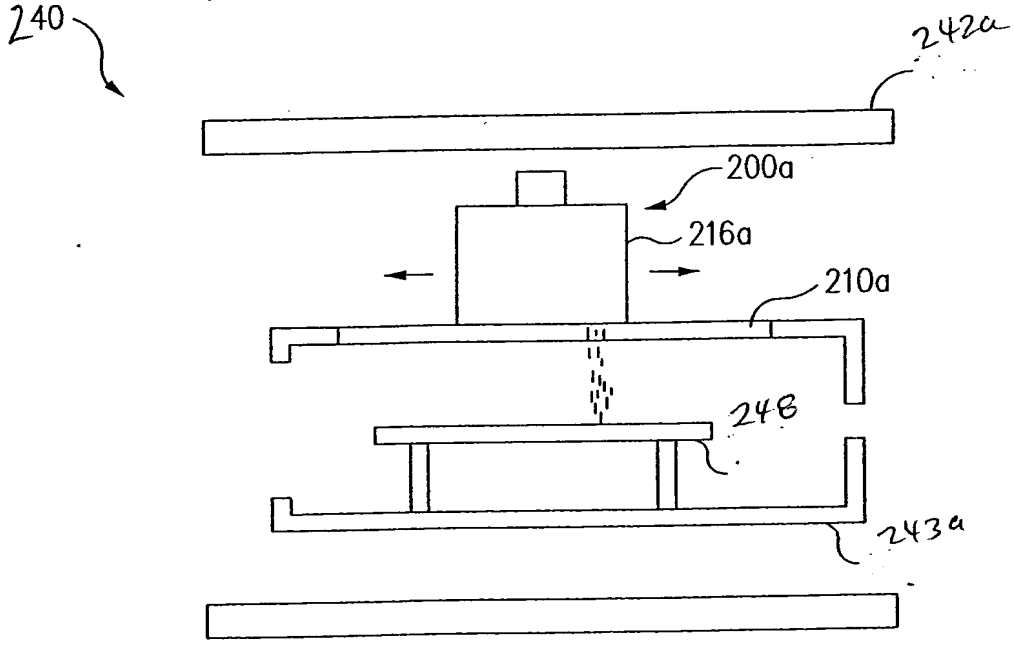

240
242a
200a
216a
210a
248
243a

FIG 2B

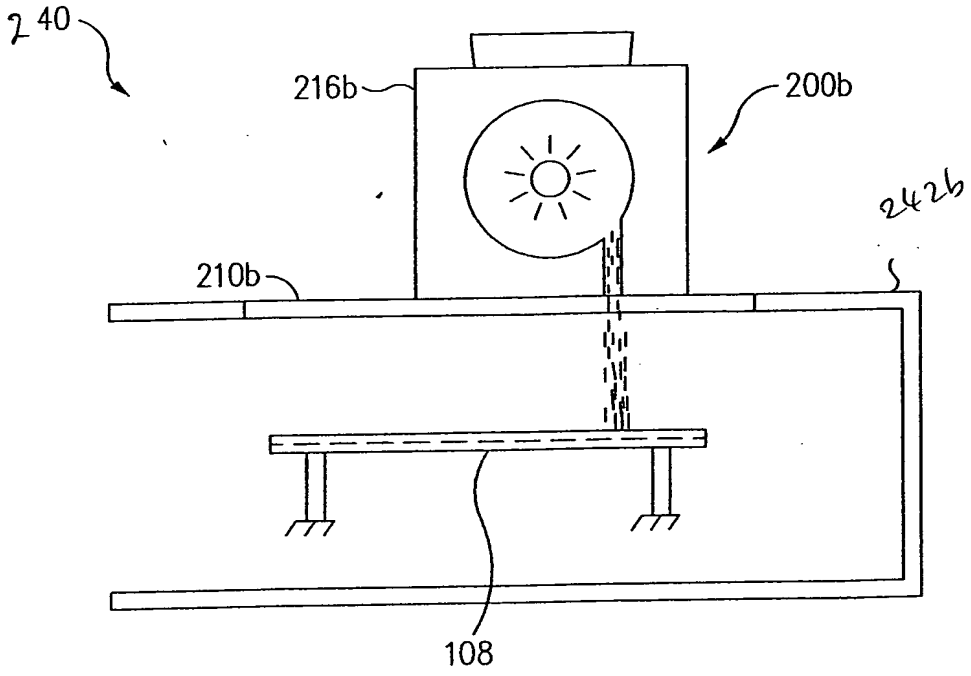



FIG. 2C

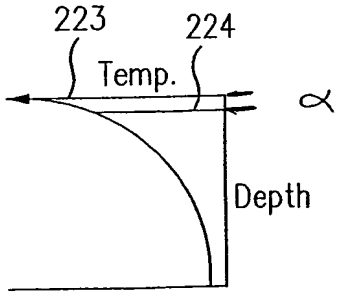



FIG. 2D

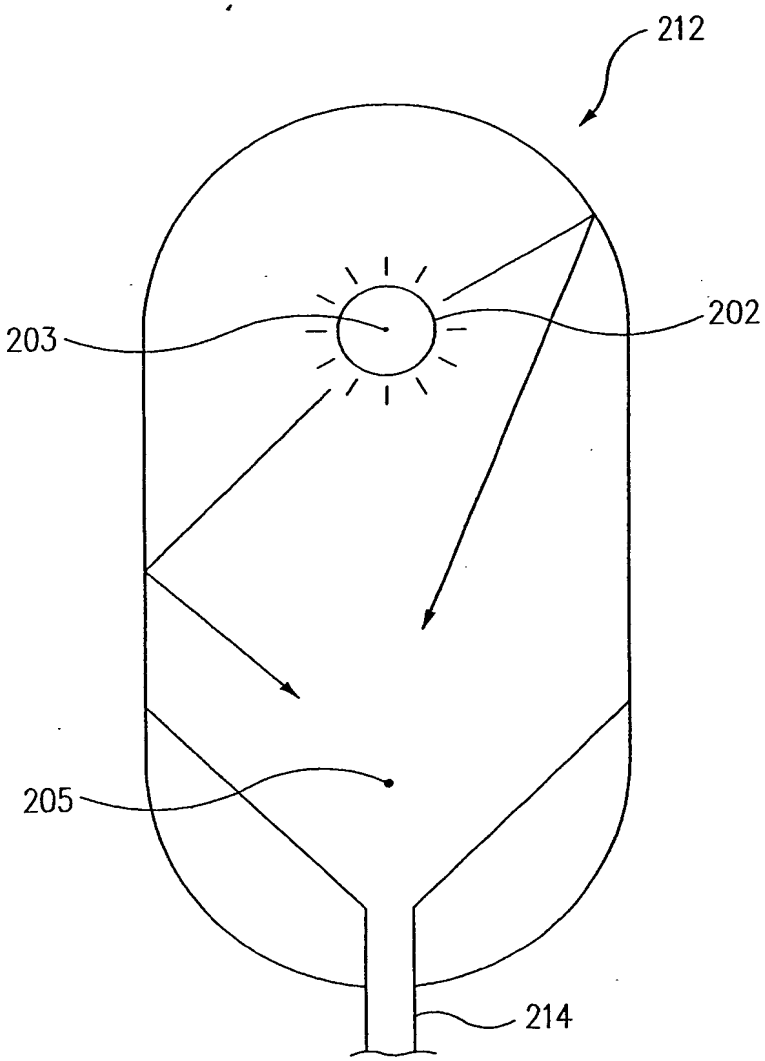



FIG. 3

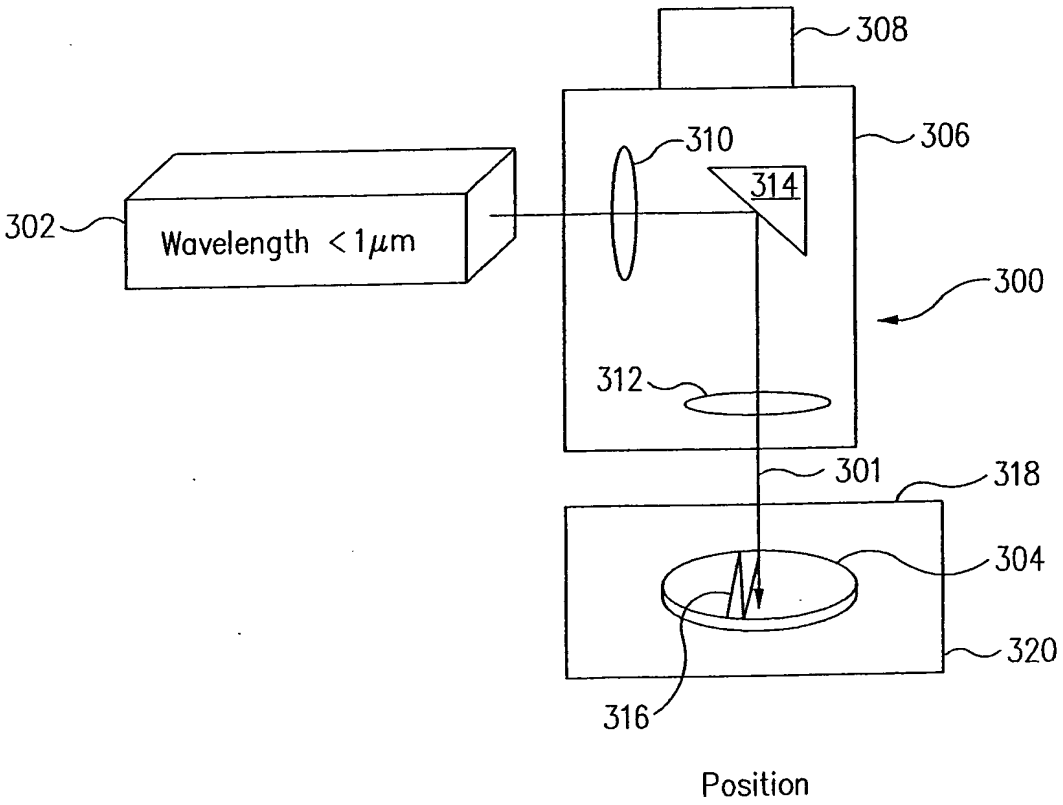

308
310
306
314
302
Wavelength $<1\mu m$
300
312
301
318
304
320
316
Position

FIG. 4

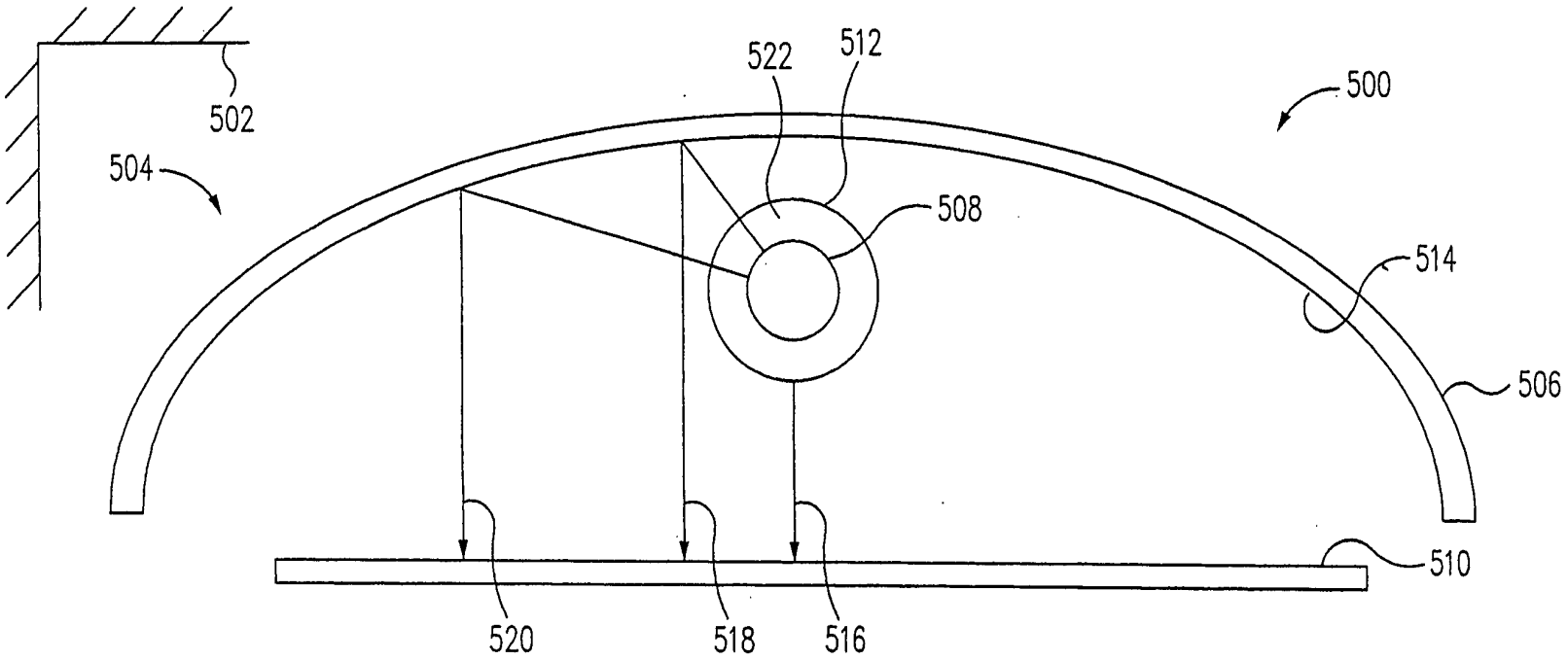



FIG. 5A

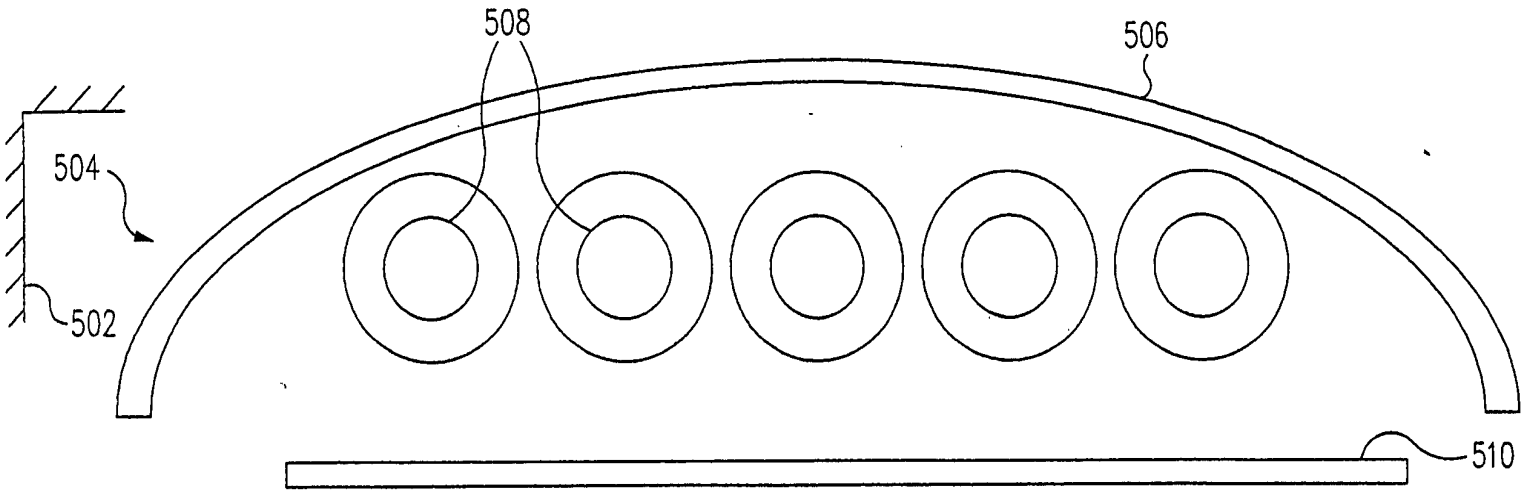



FIG. 5B

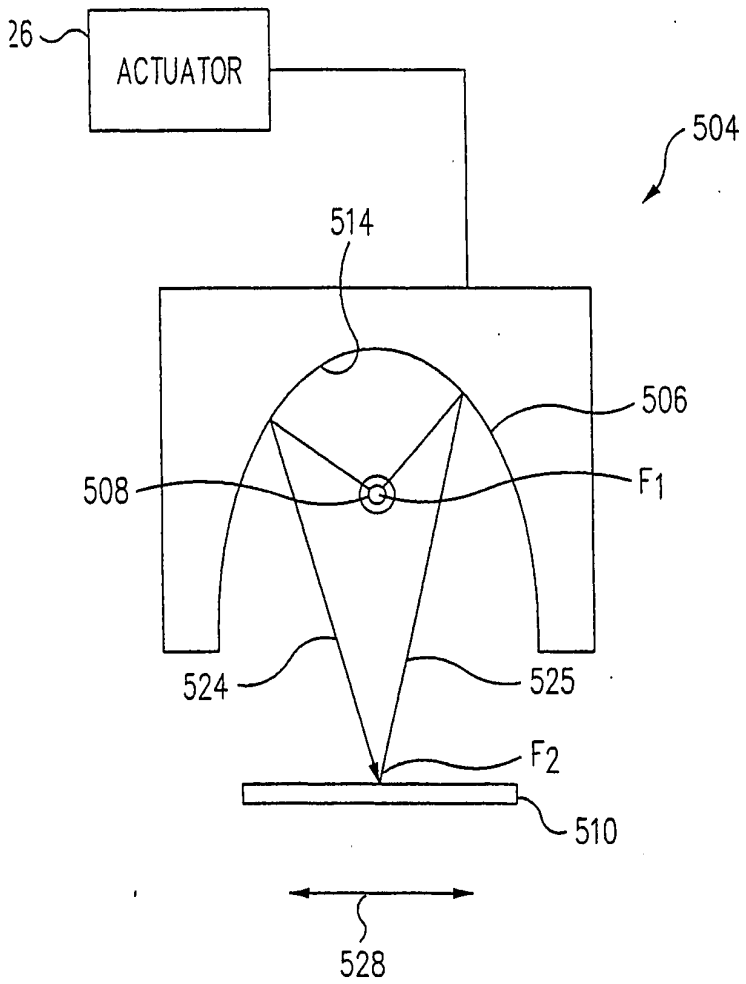

26
ACTUATOR
504
514
506
508
F1
524
525
F2
510
528

FIG. 6

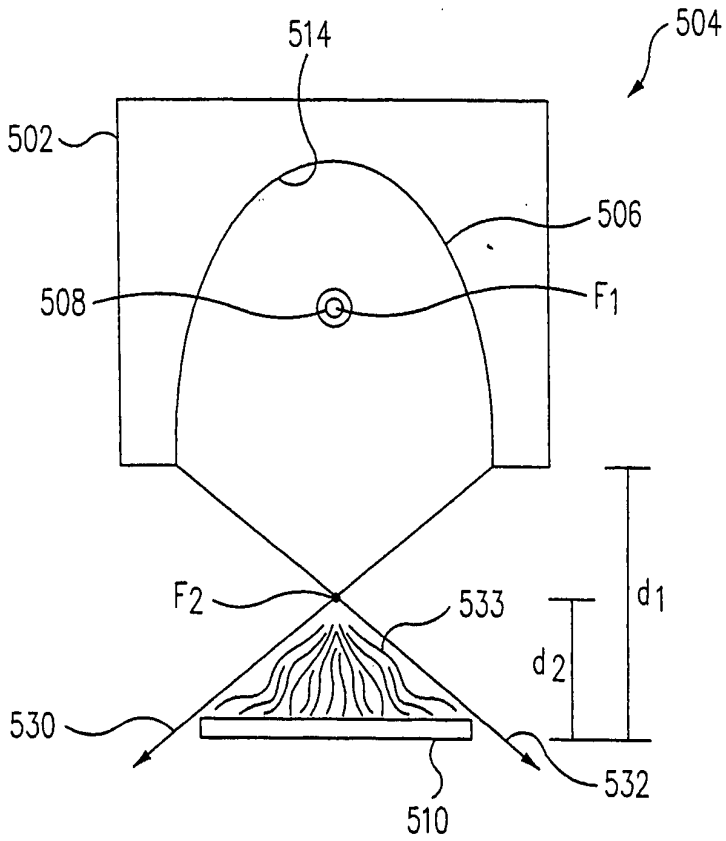

514
504
502
506
508
F1
F2
533
d1
d2
530
532
510

FIG. 7

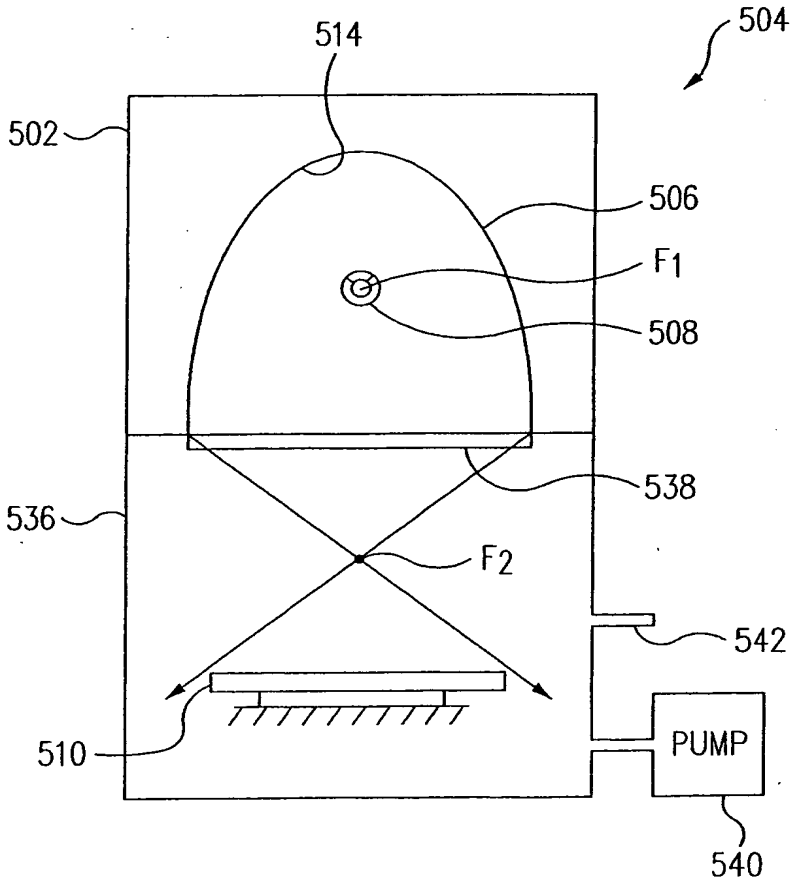



FIG. 8

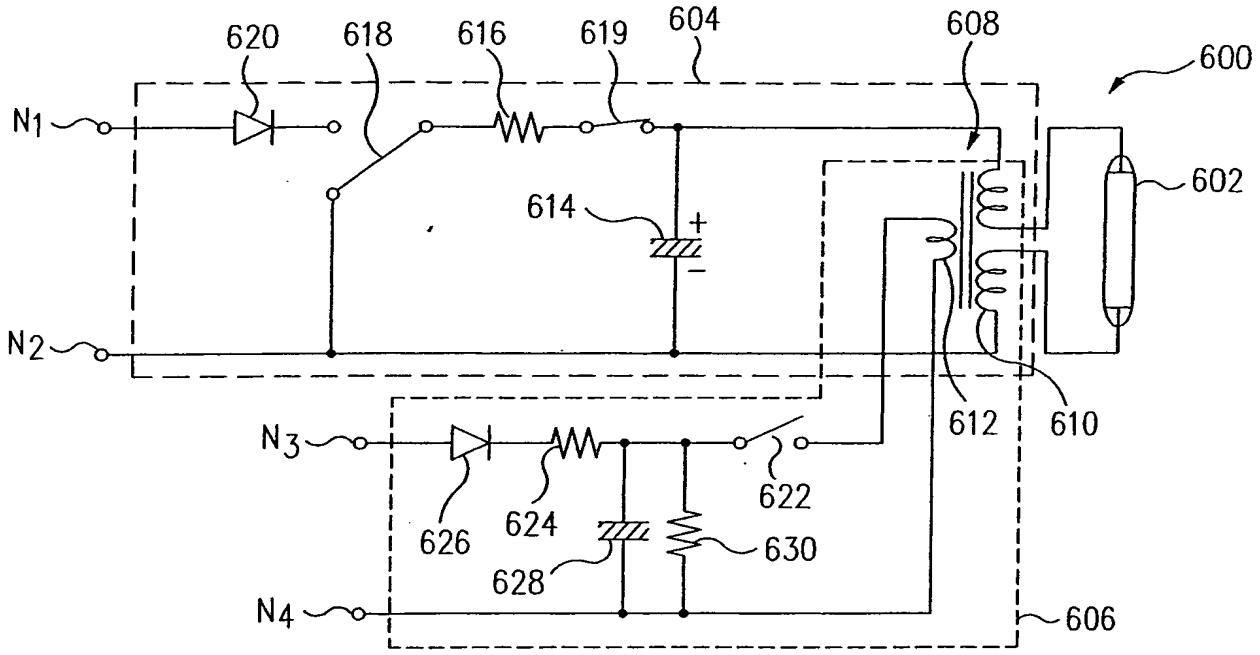

620
618
616
619
604
608
600
N1
602
614
+
−
N2
612
610
N3
622
626
624
630
628
N4
606

FIG. 9A

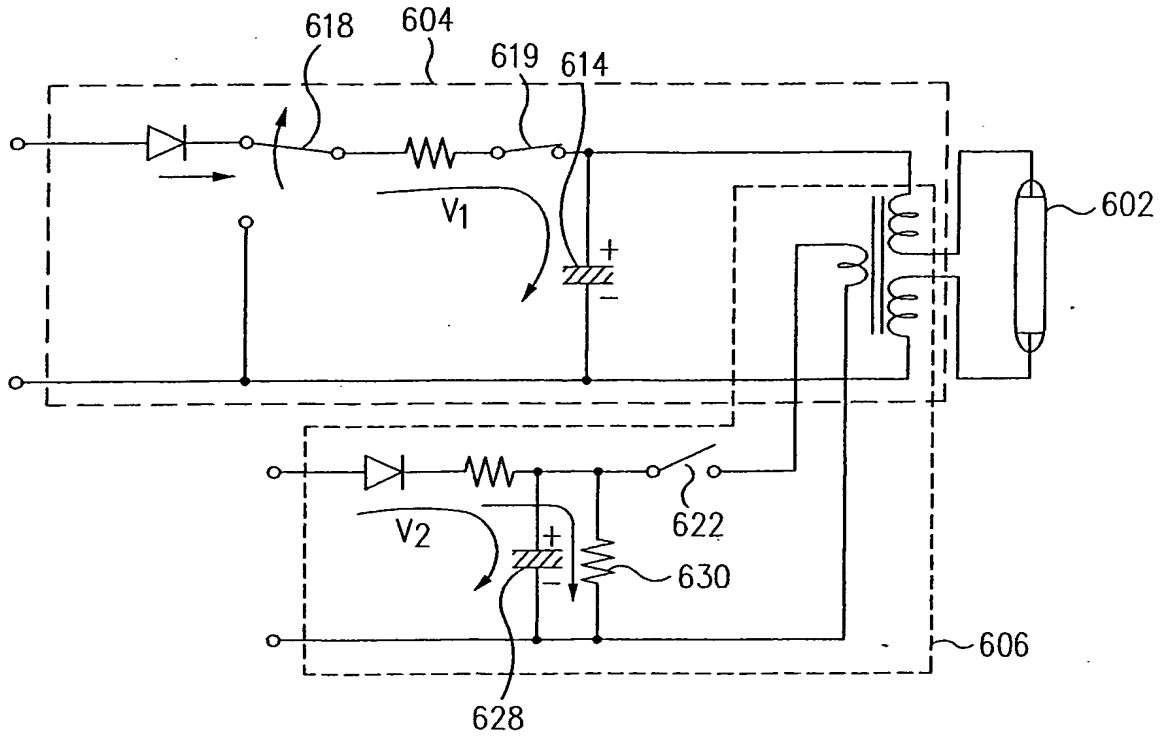

618
604
619
614
602
V1
+
−
622
V2
630
606
628

FIG 9B

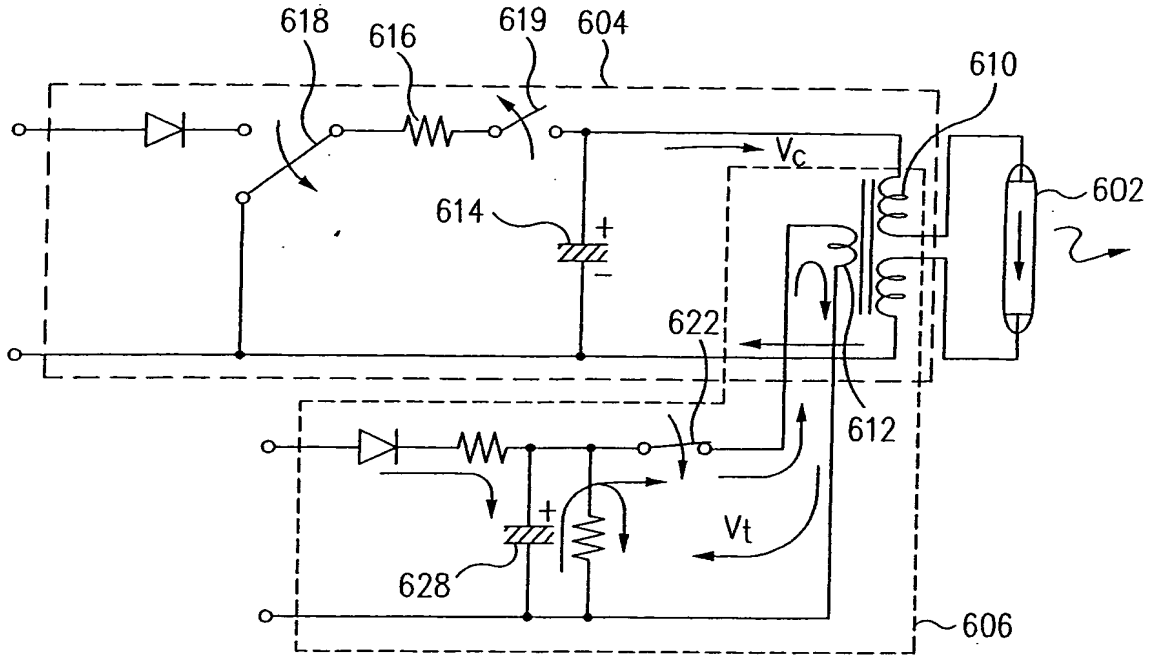

618
616
619
604
610
$V_c$
614
602
622
612
$V_t$
628
606

FIG. 9C

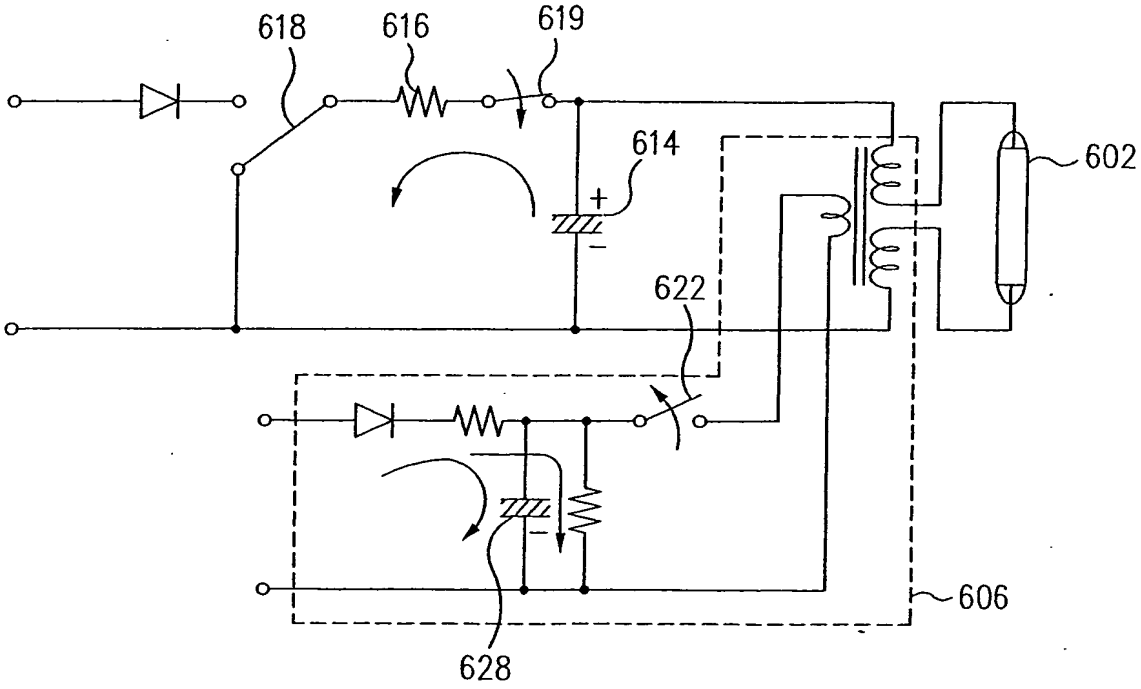

618
616
619
614
602
622
606
628

FIG 9D

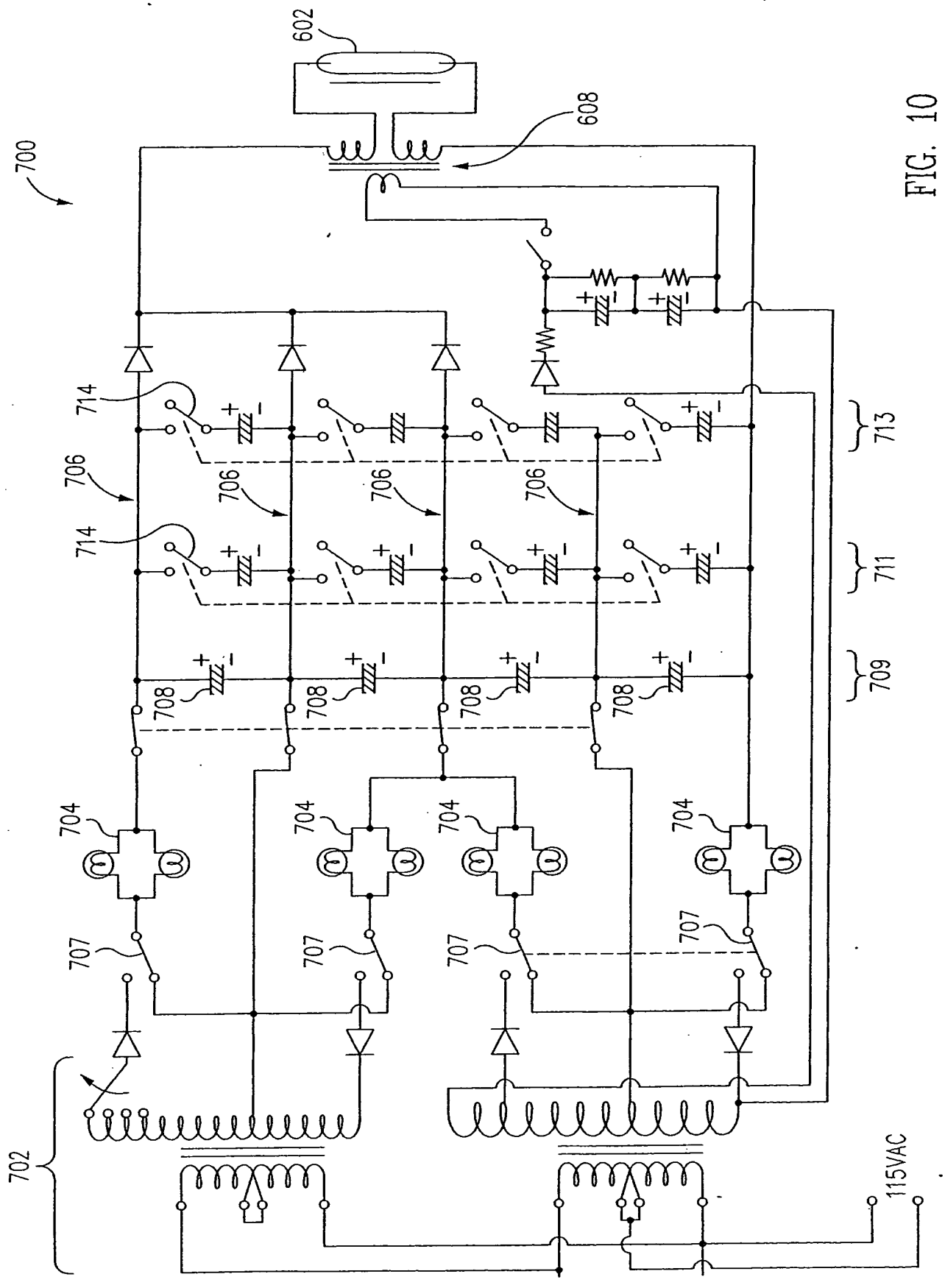

700
602
608
714
706
714
706
706
706
713
711
709
708
708
708
708
704
704
704
704
707
707
707
707
702
115VAC

FIG. 10

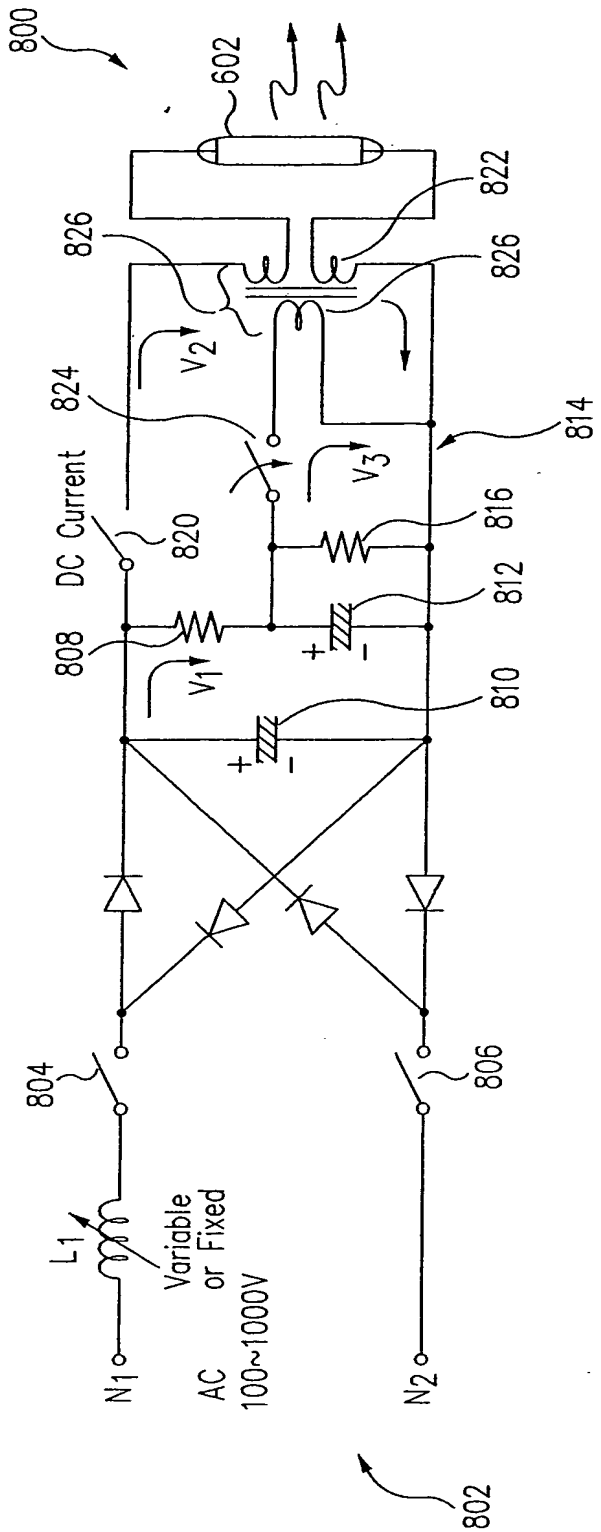

800
602
822
826
826
824
814
$V_2$
$V_3$
DC Current
820
816
812
808
$V_1$
810
804
806
$L_1$
Variable
or Fixed
AC
100~1000V
N1
N2
802

FIG. 11

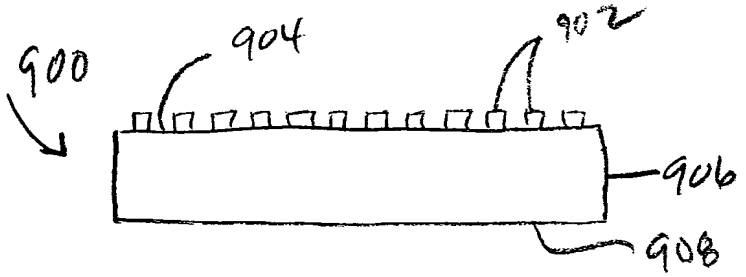



FIG. 12A

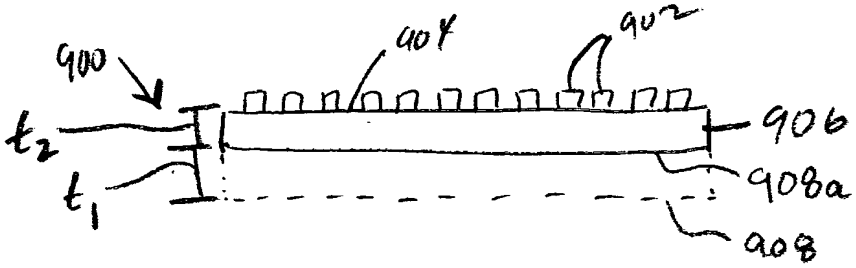



Fig. 12B

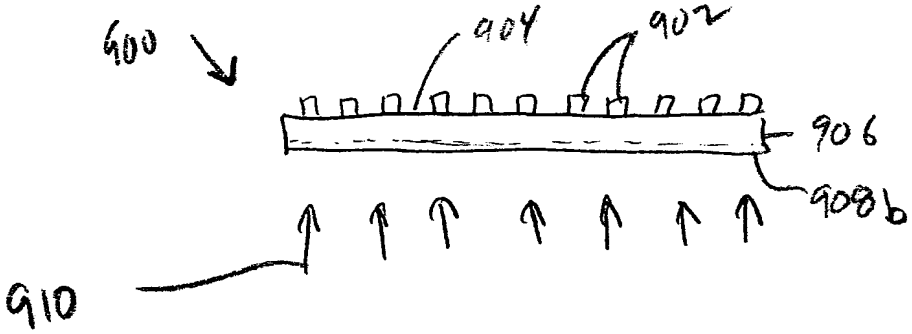



Fig. 12C

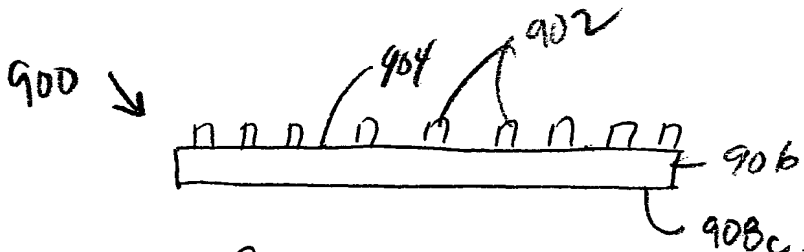
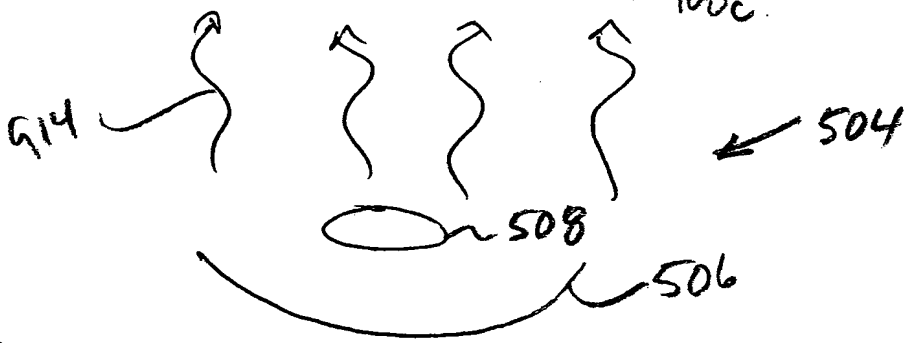



Fig. 12D



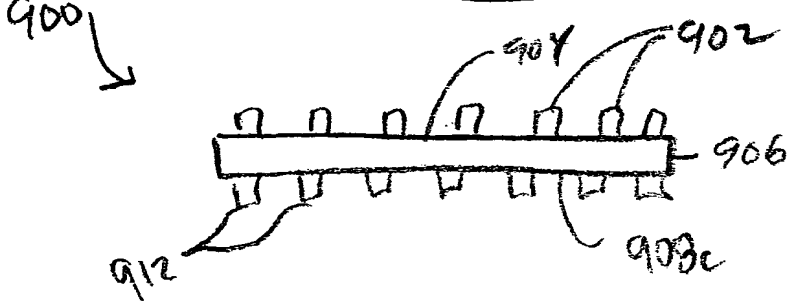
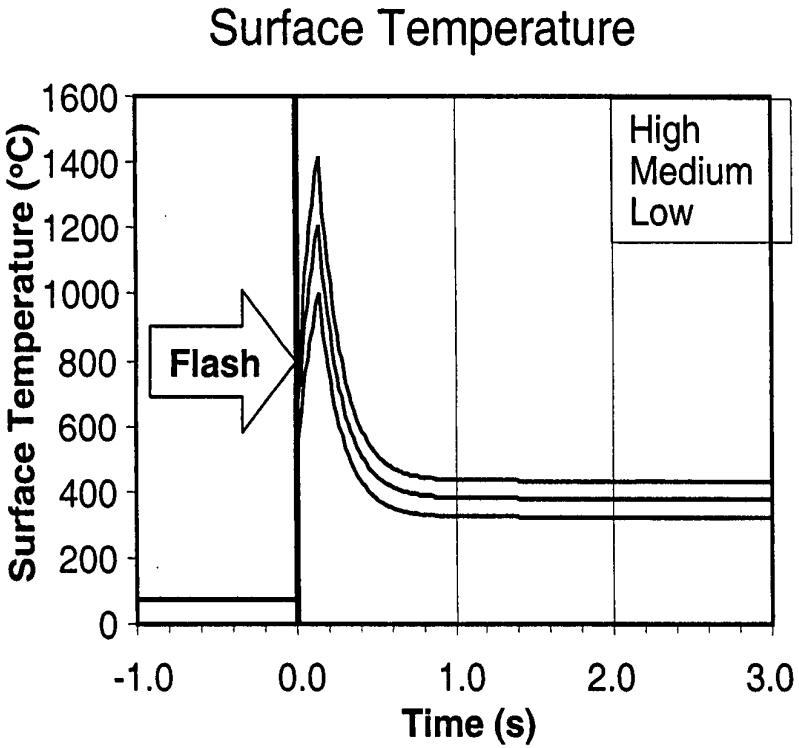
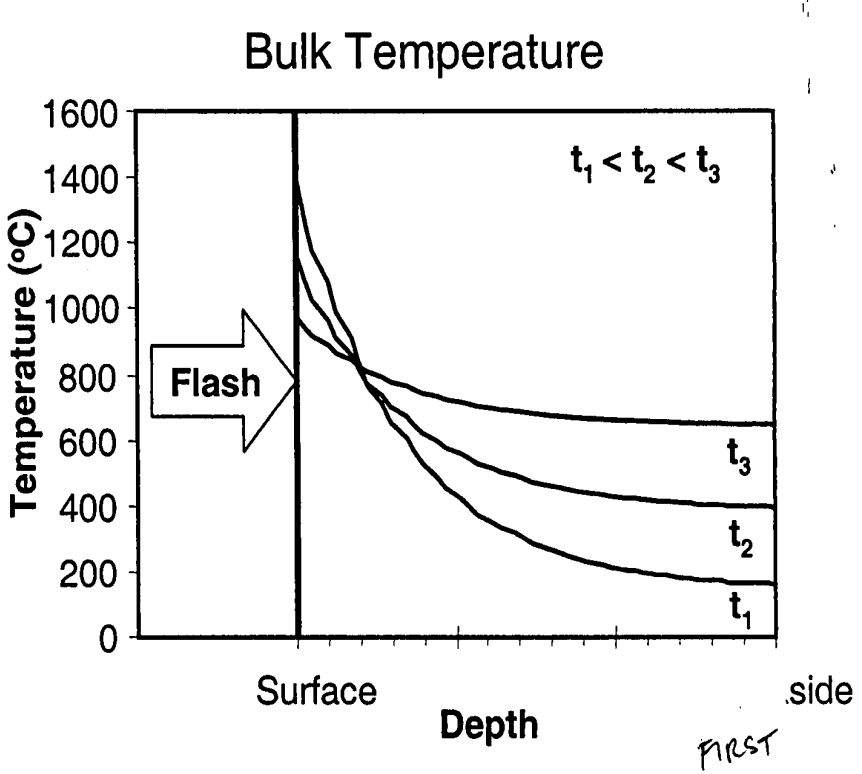




FIG. 12E




13A

FIG.




FIRST

FIG. 13B

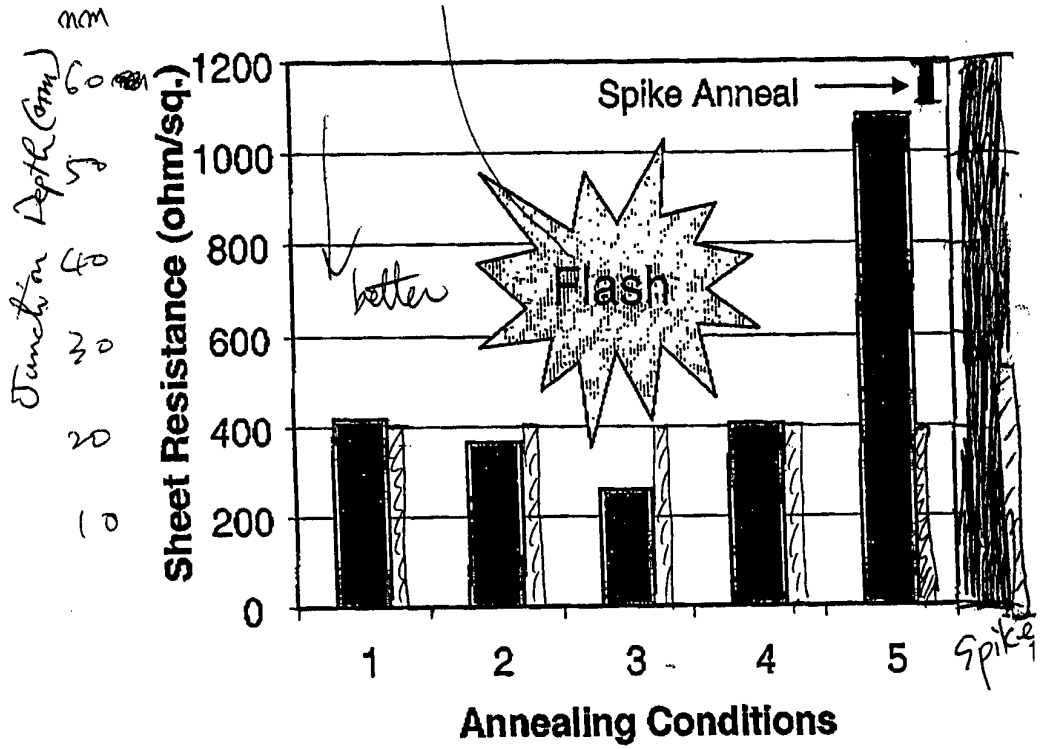

Sheet Resistance (ohm/sq.)
1200
1000
800
600
400
200
0
Spike Anneal
Flash
1
2
3
4
5
Spike
Annealing Conditions

FIG. 14